

wool at the base of each spikelet while *S. cyperinus* in a nearby marsh was hardly developed to a stage where the inflorescence was even noticable. A reference to the manual quickly indicated that the plant in question was *Scirpus pedicellatus* Fernald, a well marked species of alluvial thickets and swamps ranging from Quebec and New England westward across the northern border to Wisconsin but not previously known south of Connecticut.

Apart from the earlier flowering period, which is a striking field character even in August when the slender tangled spikelets present nothing but a naked purplish rachis terminated by a tuft of empty scales, the species seems to be quite clearly distinguished from near relatives by well marked characters. The slender pedicelled spikelets readily separate it from *S. cyperinus* in which the spikelets are clustered in close, tight glomerules. From *Scirpus atrocinctus* Fernald it is distinguished by the thicker culms, broad firm leaves averaging about seven millimeters in width, and stramineous involucels almost uniform in color from tip to base. *Scirpus Eriophorum* Mx. with a range from Connecticut to the Gulf States and Arkansas, mostly near the coast, resembles *S. pedicellatus* but the pale brown scales and light colored wool of the latter species shows no trace of the deep red-brown coloring that is so characteristic of *S. Eriophorum*.

When such a pronounced difference is clearly correlated with a perfectly distinct geographical range it would seem consistent to recognize the plant as a definite entity rather than force it into a composite species where its identity and significance would, to a great extent, be lost in an unwieldy series of variants.

Bushkill, Pa.

## PROCEEDINGS OF THE CLUB

### MEETING OF APRIL 11, 1922

The meeting of April 11, 1922, was held in the botanical lecture-room of Columbia University, beginning at 8:15 P. M.

Miss Louise Dossdall, St. Paul, Minn., and Mr. William Gavin Taylor, Bloomfield, New Jersey, were elected to membership.

The scientific program consisted of a talk by Professor H. M. Richards on "Some Impressions of Japanese Vegetation."

The talk was mainly an account of a visit to Japan during the summer of last year. After a brief account of some of the outstanding geographical features of the country, various trips were described.

During the summer months the most conspicuous feature is the rice culture. The rice fields cover a very large part of the narrow valley and coastal plain and also of all the hills which can be terraced. Practically all of the rice of Japan is of the irrigated type and as the fields are small they are still cultivated by hand labor. The area of rice cultivation has been considerably extended in the last twenty years and it seems now as if almost all the available land has been utilized. Other summer crops are the lotus, *Colocasia*, various beans and the minor garden crops. Besides these, tea plantations are characteristic of certain parts of Japan, especially near Uji, not far from Kioto. The mulberry, grown for the silkworm industry is also seen in great quantity, and during the summer is largely stripped of its leaves, which have been removed for the food of the silk worms.

The bamboo, another plant associated with Japan, though largely introduced, has become fully established. The larger forms are almost all originally from other lands, at least that is the common statement. There are many introduced plants in the country, but the history of their introduction goes so far back and is so vague, and the plants themselves are so common, that they are now practically a part of the native flora. An example of the kind is probably *Cryptomeria japonica*, the most stately of the Japanese conifers.

Motoring out from Yokohama towards the foot hills of Fujisan, the road passes through a country characterized by small abrupt hills with narrow valleys between. It is well watered and there are many small rice fields, while the hills are covered with a mixed deciduous growth. As the sea shore is approached, the typical strand forms are to be seen, with the most conspicuous tree, *Pinus Thunbergii*, in either isolated specimens or in copses of some extent. The road is the old Tokaido and the pines which border it were planted many years ago. As the road ascends into the hills the country is more heavily wooded. These woods are naturally of a mixed growth, but owing to the extensive reforestation in the last two decades much of the forest is artificial.

A strongly marked characteristic of the natural Japanese forest is the great diversity of species found in the same area, due perhaps to the intermingling of forms from both the northern and the southern mainland. The most luxuriant forest growth is seen towards the north.

At the end of the talk a number of pictures were shown with the epidiascope. They were mainly taken from Professor Miyoshi's plates illustrating the flora of Japan, being supplemented by photographs and some of the old color prints of Hiroshige.

MARSHALL A. HOWE  
*Secretary.*

#### MEETING OF APRIL 26, 1922

The meeting was held under the joint auspices of the Torrey Botanical Club, the New York Bird and Tree Club, and the Wild Flower Preservation Society of America. Some of the members of these organizations met at the Museum of the New York Botanical Garden at 11 A. M. and viewed birds, trees, and flowers on the Garden grounds under the guidance of Dr. G. Clyde Fisher, Dr. W. A. Murrill, and Mr. Percy Wilson. The meetings were held in the afternoon in the Mansion of the New York Botanical Garden, beginning at 2:30.

The first part of the program consisted of an illustrated lecture on "Woodland Wild Flowers" by Dr. Edgar T. Wherry of Washington, D. C.

The wild flowers found in woods may grow there because of favorable conditions of shade, climate or moisture, but the reaction of the soil is also an important factor. The leaves, twigs and bark of trees are often slightly acid in their living condition. When they fall to the ground, they are attacked by micro-organisms, some of which change the cellulose and other carbohydrates into acids, while others produce only carbon dioxide and water which escape leaving behind the alkaline ash constituents of the vegetable matter. Whether the forest litter in a given locality shall become acid or alkaline depends, accordingly, on which type of organism chances to predominate there. The mineral soil beneath may also have a modifying influence. The fixation of atmospheric nitrogen and the ren-

dering available of other plant foods in the soil is closely connected with the degree of acidity or of alkalinity represented. When the seeds of plants, in the course of their dispersal, reach a given locality, what will happen is largely determined by the chemical conditions. Only when the chemical character of the soil is exactly adapted to the needs of a given species will that species become well established.

By way of illustration a series of some 50 hand-colored lantern slides of wild flowers was shown, many of these slides being the property of the Washington Chapter of the Wild Flower Preservation Society of America.

The second item of the program was an illustrated talk by Dr. H. M. Denslow under the title "Our Terrestrial Orchids" assigned to him by the program committee.

Though orchids are almost gone from Greater New York, there are still to be found, within the sixty counties of the Torrey Club area, about fifty species, of twenty-two genera; these numbers being respectively about two-sevenths and four-sevenths of the totals recorded for North America. There is a great variety also, owing to the long reach, from Columbia County, N. Y., to Southern New Jersey, so that we have at one extreme *Limnorchis hyperborea* and at the other *Ophrys australis*. *Cypripedium arietinum* comes within about thirty miles of our limit, in New York and in Massachusetts, and *Blephariglottis peramoena* has been found until recently in New Jersey.

It was suggested that our species may be divided, with reference to their provision for the visits of insects, into the "pouch" species such as the *Cypripediums*, *Peramiums* and *Calypso*, and the "porch" species, which include the great majority of our species.

The fact was emphasized that most of our handsomest species are among the earliest; and the various kinds of root-formation were described briefly, to illustrate the hint of some connection between the luxuriant growth or early flowering of some species and their abundant provision for gathering and storing a readily available supply of nutriment for the season's growth.

About forty slides were shown, including some, furnished by Dr. Wherry, of species and stations near Washington, D. C.,

and one of *Ophrys australis* collected and photographed near Columbus, Miss., only a few days before.

The program concluded with an exhibition of lantern-slide photographs of our native orchids by Mr. Albert E. Lownes of Providence, R. I.

MARSHALL A. HOWE  
*Secretary.*

#### MEETING OF MAY 9, 1922

This meeting was held at the American Museum of Natural History.

Four new members were elected:

Miss Mary Chambers, Brooklyn.

Miss L. O. Gaiser, Barnard College, N. Y. C.

Miss Alice Halsey, N. Y. C.

Miss Susanna Meyers, N. Y. C.

The secretary announced the death of Mrs. Alice R. Northrop. A committee was appointed to draw up suitable resolutions.

The scientific program consisted of an illustrated lecture by Dr. P. A. Rydberg on "Yellowstone National Park," dealing with floral and scenic features of that region.

MARSHALL A. HOWE  
*Secretary.*

#### NEWS NOTES

As a contribution to the discussion of evolution that has occupied so much space of recent months in newspapers, popular magazines, religious periodicals and the scientific publications, Dr. R. C. Benedict has published a leaflet on Evolution as Illustrated by Ferns, as No. 3, Series X, of the leaflets of the Brooklyn Botanic Gardens. Dr. Benedict describes the forms of the Boston fern developed in cultivation as an illustration of evolution of new forms that has occurred in the last few years.

A bill now before the House of Representatives would make the daisy our national flower. This is not the first flower to be suggested for such honor as the violet and mountain laurel have been nominated in bills recently. It hardly seems patriotic to suggest a plant not native of America for the purpose while the fact that the daisy is in places a troublesome weed would also be against it.